



ASSOCIAZIONE
PER IL COMMERCIO
ITALO • MONGOLA

GREAT DEVELOPMENT AND INVESTMENT FORUM 2009

Government projects

A) Road and railway sector

- A1) Construction of Altanbulag-Ulaanbaatar-Zamin UUD 990 km highway (ASIAN HIGHWAY 3).

Applicant: Ministry of road, transportation, construction and urban development of Mongolia.

Project background and outline: recently Mongolia became a member of the Central Asia Regional Economic Development Program (CAREC) and has joined to the Convention of the International Transport of goods under Cover of TIR Carnets (TIR Convention, 1975). The International Road Transport Union has authorized the National Road Transport Association of Mongolia (NARTAM) as an issuing association and as a guaranteeing association vis-a-vis the Mongolian Custom Authorities to help armonize international cross border transportation. Mongolia has joined to the Asian Highway Network with AH-3, Ah-4, AH-32 routes respectively. The Ministry has a specific policy on connecting the expressway of Asian highway network which connects Mongolia to Russia and China through Altanbulag-Ulaanbaatar-Zamin UUD (AH-3).

Capacity: Total length of Altanbulag-Ulaanbaatar-Zamin UUD expressway is 990.4 km and is planned having 4 lined with 100 km/h design speed. Having constructed an expressway, Mongolia will have transport corridor which connects to the neighboring countries in north and south of Mongolia and has high passability not only for domestic freight turnover but also transit transports of Russia and China. I twill provide opportunity for the road transport with shorter way within short period. Along this expressway alignment of 990.4 km, 506 km road with Class III paved road has been constructed, however, approximately 300 km section was reconstructed 8 years ago which required now rehabilitation. Remaining 480 km road with Class III in Ulaanbaatar-Zamiin-Uud are ongoing under construction and is planned to complete in 2010. Having constructed this expressway, it will be possible to transport at least 30-40 million tons of freight. Therefore, future freight turnover between Russia and China will be economically crucial to pass through this road corridor.

Total investment (millions USD): feasibility study and design 3,0; direct cost of construction work 1.084,38; consulting service 54,2; contingency 86,7; total 1.228,4.

Project period: 2011/2015.

Financing option for the project: Possible funding for the project would be a combination of following sources: 1) Government subsidy; 2) Private investment; 3) Toll revenue. In order to procure such Government subsidy, all funding alternatives

through: a) Mongolian Government road fund (main funding source); b) Asian Development Bank loan (conversion of existing funding for AH-3 to the project road and additional funding); c) cross border financing (Mongolia, Russia, China).

- **A2) Construction of Tavantolgoi-Zuunbayan-Choibalsan 920 km railway line.**

Applicant: Ministry of road, transportation, construction and urban development of Mongolia; Railway Authority.

Objectives of the project: Connection with railway national network; to export the mineral products to Russia and China, as well as procure the internal needs; to connect with Europe and Middle East through the Trans-Siberian and Kazakhstan railway network, as well as connect with North-East and South East Asia through the Chinese railways. In condition of sharp increase of economy the railway network extension issue has to provide the possibility of access to the sea, connection of regions, independence of minging products from one market, taking into account the study of freight volume increase and transportation trend.

Production scale: The total length of the railway line in Mongolia is presently more than 1.815 km, including 1.111 km of main line linking northern border with Russia to Trans-Siberian railway and southern border with China to Chinese railway network. The railway main line is shorter by 1.135 km compare with Zabaikalsk–Manchurian route, as well as by 1.600 km compare with silk iron route of Kazakhstan and China route.

Total investment (millions USD): feasibility study 3/5; construction Tavantolgoi-Zuunbayan (370 km): 580; construction Zuunbayan-Choibalsan (550 km): 790; total 1.370.

Project period: 2009-2010.

- **A3) Improvement program of Ulaanbaatar city road network.**

Applicant: Ministry of road, transportation, construction and urban development of Mongolia.

Basic informations: Ulaanbaatar city - situated at 1350m above sea level; territory 4700 sq.km; divided into 9 districts; population 1.1 million (40% of country's total population); number of vehicles 140.000; total paved road network is 427.6 km, out of which 80% of roads are more than 15 years old.

Project outline: Every year, number of vehicles in Ulaanbaatar is increasing by 20% in recent years. However, existing deteriorated road network which is overloaded above its capacity becomes root cause for congestions in city streets and increases occurrence of road accidents. 80% of total city road network is being used for more than 15 years and deteriorated to a large extent due to lack of or poor routine maintenance and rehabilitation.

Existing road network: 366.9 km roads, out of total existing 427.6 km road in Ulaanbaatar, are asphalt concrete and 60.7 km road are cement concrete roads. There



ASSOCIAZIONE
PER IL COMMERCIO
ITALO • MONGOLA

are total 61 bridges and all are reinforced concrete bridges except one. However, these are exceedingly deteriorated due to many years of service.

Future road network plan: Up to 2012: rehabilitation of 350km road; Augment 7 junctions by constructing grade-separated intersections/junctions; Construct 212 km new road. The Government of Mongolia set a goal and working towards improvement of Ulaanbaatar city network by rehabilitating 80% or 350 km existing road and construct 212 km new roads and reconstruct grade-separated junctions at 7 locations by 2012.

Total investment: (millions USD): 910.

Project period: 2009-2012.

B) Construction, housing, construction materials industry sector

- B1) 100.000 housing project.

Applicant: Ministry of Road, Transposition, Construction and Urban Development, Government of Mongolia.

Project background and outline: This project was thought to change the Ger area to modern urban habitations by creation of socioeconomic prosperous environment and investment and to adjust the City present social-economic and ecological obstacles by transfiguring the prosperity of business and investments. The construction of 100000 housing permit to solve some problem related to living condition in Ulaanbaatar, so people who is living in extremely poor and hard condition could gain a vocational training and eventually get employed in the construction sector. As result, this people could increase their financial abilities in accepting home loan. Government of Mongolia decide to approve mortgage law to create favorable living condition. This law regulates transition between land owner. Stable employment can offer mortgage loan. So this project allow to decrease unemployment rate in society and generate more income for majority portion of population and make a significant influence on GDP of Mongolia. Moreover, this project will be significant for a development strategy of the capital city of Mongolia and useful for the construction materials industry that will receive a great opportunity to develop and activate its production of cement, filler materials, insulation, glass, steel and finishing material, etc. At last the 100.000 housing project will improve 1.0 Million people's living environment.

Capacity: the project planned the construction of 100.000 house where will live 100.000 families with a modern life style and environment, stable employment, better living condition for householders and residents and privacy. 100.000 new job position will become available on construction company and related construction material factories. City directorate support Housing Project by land registration and the government (Ministry of Road, Transport, Construction and Urban development) invest main infrastructure as Electricity, Heating, Sewage water. Territory of 14000



ASSOCIAZIONE
PER IL COMMERCIO
ITALO • MONGOLA

hectares will become free for other urban construction area. With this project will be created 50000 jobs in the construction sector, 20000 jobs in the production of construction materials, 15000 jobs in support labor force and over 10000 jobs in the infrastructure. This means approximate 45000 people will be employed full-time permanent basis.

Total investment (millions USD): 2.700,00.

Project period: 10-15 years.

- **B2) New 14th housing estate: 128 housing, 5 kindergarten, 2 school, 8 hospital, 1 technical college, supermarket (9000 mq), 1 trade center, 1 hotel, restaurant (1100 seats).**

Applicant: Ministry of Road, Transposition, Construction and Urban development, Government of Mongolia.

Project background and outline: The Government of Mongolia established a project of development for Ulaanbaatar city until 2020 to upgrade the current city situation. This plan aim to: improve the exploitation of land by decreasing the dry waste; improve living condition of households by providing adequate housing for city residents; create stable employment conditions and reduce poverty. The housing project will upraise near the downtown in a flat area of construction. It also permit to increase the investment in construction branch, the revenue of budget and to improve the condition of international trade center "NARANTUUL". The project presents some strength point as the position of the area of construction that have great opportunities for housing and commercial, the possibility of implementation of city major plan in nearest future, the infrastructure that have been already solved (electricity, heating, waters, main roads) and an uncompleted privatization for private use.

Capacity: The project will include 128 housing that could house 9106 households, 5 kindergarten that could take 3000 kids, 2 school for 6000 pupils, 8 hospital for 840 in-patients per day, 1 technical college that will take 300 graduate in per year, supermarkets (9000 sq. m), 1 trade center of 3000 sq. m, 1 hotel that could host 150 guests in per day and restaurants for 1100 seats. Areas of construction are 13th, 14th KHOROO, BAYANZURKH DISTRICT, UB CITY. This location is characterized by a population of 17956 unit, 118 business activities, 1500 total yard, 4462 households.

Total investment (millions USD): 511,1.

Project period: 2009-2011.

Project location: Ulaanbaatar

- **B3) Yarmag housing project: 11.050 households 65 mq + 5.095 households 45 mq.**

Applicant: Ministry of Road, Transposition, Construction and Urban development, Government of Mongolia.

Project background and outline: The Government of Mongolia established a project of development for Ulaanbaatar city until 2020 to upgrade the current city

situation. This plan aim to: improve the exploitation of land by decreasing the dry waste; improve living condition of households by providing adequate housing for city residents; create stable employment conditions and reduce poverty. Non qualification people can involve to this construction training program. This is the best solution for improve household income. The project presents some strength point as: the infrastructure that have been already solved (electricity, heating, waters, heating /Hot, cold). The location permit to build green area, gardens, parks and lakes. There are also mountains and a big flat area for housing and commercial area. Moreover in the area there are already schools and kindergartens.

Capacity: For this project are required the construction of different things like roads, buildings, parks, playgrounds and rest areas. Areas of construction are 4th, 5th, 6th, 7th, 8th KHOROO, KHAN-UUL DISTRICT, UB CITY. This location is characterized by 8731 households, 293,6 hectares, 4028 total yard divided in three section. Yellow section is reserved to housing for residents (265 hectares); green section reserved to commercial and trade area for tourism (28.6 hectare) and the housing sector reserved to the consumers. The amount of costs for the housing project is of 473.7 million \$, are scheduled two type of apartments: 45 m2 and 65m2. The amount of costs for roads is 1.1 million \$ and are scheduled 12 and 6 m wide roads. The cost of the infrastructure is 36.3 million \$.

Total investment (millions USD): 511,1.

Project period: 2009-2011.

Project location: Ulaanbaatar

- **B4) Cement plant.**

Applicant: Ministry of Road, Transposition, Construction and Urban development.

Project background and outline: industrial Corporation of Mongolia" ICM LLC is a 100% local company dedicated to the establishing and development of national heavy industries through mining and processing of available mineral resources, as well as marketing of end products both domestically and internationally. Since its establishment in 2006, the company has initiated several essential industrial projects such as: "Coal to Liquid", "Pig Iron Smelter", "Highway", "Cement Plant" and 600MWt Power plant project. Feasibility studies for these projects have been already done by German, Australian and Korean companies and in the process of being implemented. This project will supply the cost efficient product to domestic companies involved in housing projects, mining and infrastructure sectors. As a result, there will be a significant decrease in the construction and housing price. Moreover the quality of the cement is not decayed because there are no long distance of transportation and storage. The permission to export power from the central electric grid was granted by the Ministry of Minerals and Energy, and permission to use 20 hectare of land for 60 years was granted by the Dalajargalan soum governor. Moreover was approved the design to build 3 km long extension railroad. The "Turn-key" agreement approved by the Federation Internationale Des Ingenieurs-Conseils



ASSOCIAZIONE
PER IL COMMERCIO
ITALO • MONGOLA

(FIDIC) will be applied in the construction, equipment erection, and engineering of the plant. For the safety of the technology, 5 per cent bank guarantee will be issued.

Capacity: the construction of the deposit require 24 months divided in 20 months spent for plant construction and 4 months for trial operation. 600 people will work on this project: Mongolian staff have been in China for a training before the start of the plant, and after operation the staff will have a re-training. The raw material is provide by Bliuut limestone deposit in Dalajargalan soum of Dornogovi aimag that has confirmed 65 million tons of limestone. Other deposit are Gyp sum from Bayantal deposit of Govisumber aimag and coal (CV above 7000) from Eldev coal deposit. The capacity of the plant has to be of 3000 tons per day, 1million t7a will be enough to supply domestic market. Cement Plant will be built in Dalanjargalan soum of Dornogoviaimag, 320km from Ulaanbaatar. It is 12km from railway, highway and central electric grid. Limestone deposit will be built in the territory of Dalanjargalan soum, Dornogobi province and Clay deposit will be built close to the16th railway station at the territory of Bayantal soum, Gobisumber province.

Total investment (millions USD): 120,0.

Project period: 24 months.

Project location: Delanjargalan soum of Dornoigovi aimag, 320 km from Ulaanbaatar.

Financing: 30% of the required investment will be made as a direct investment and remaining 70%by loan.

- **B5) Integrated iron/steel plant.**

Applicant: Ministry of Road, Transposition, Construction and Urban development.

Project background and outline: industrial Corporation of Mongolia" ICM LLC is a 100% local company dedicated to the establishing and development of national heavy industries through mining and processing of available mineral resources, as well as marketing of end products both domestically and internationally. Since its establishment in 2006, the company has initiated several essential industrial projects such as: "Coal to Liquid", "Pig Iron Smelter", "Highway", "Cement Plant" and 600MWt Power plant project. Feasibility studies for these projects have been already done by German, Australian and Korean companies and in the process of being implemented. This project was thought to produce efficient and quality iron product which would replace imported products and contribute to Mongolian economy by producing value added products to export made by natural materials and resources. The project is planned in the location of Selenge aimag, Yeroo soum. There main advantage deriving from this project is that this iron/steel product will supply all the companies involved in road, bridge railroad and housing projects, construction ad infrastructure. As a result the project of housing and road construction will increase.

Capacity: the construction of the deposit require 36 months. The raw material is provide by Tomortei, Bayangol iron deposits that confirmed 750000 tons of concentrate Fe grade 67%. The capacity of the plant has to be of 500 thousand tons per day, the work force will be composed by 1500 people.



ASSOCIAZIONE
PER IL COMMERCIO
ITALO • MONGOLA

Total investment (millions USD): 212,0.

Project period: 36 months. Project location: Selenge aimag, Yeroo soum.

- **B6) Wood processing plant.**

Applicant: Ministry of Road, Transposition, Construction and Urban development, Government of Mongolia.

Project background and outline: this project was thought to produce efficient and quality wood product which would replace imported products and contribute to Mongolian economy by producing value added products to export made by natural materials and resources. Development and operationalization of a plant with a capacity to process 60,000 cu. M woods and manufacture woods products per annum would facilitate rapid introduction of new products to the market, meeting market demand, and exportation thereof to the PRC and Republic of Korea. It would also prevent from harvesting 60,000 cu. M in forest of Mongolia. The proposed wood plant offers high economic return and efficiency given its building and machinery and equipment that can be erected and installed for the short time. There are many benefits expected from the development of the project like increase of export, decrease of weight of buildings, increase productivity, save lifting and handling machinery and equipment, shorten time of construction and save material costs. As result, this could attract interest of banks and investors. Comparative analysis on labor consumption of wood vs brick buildings save cost of skilled labor 2,1 times, save cost of un-skilled labor 4,78 times and reduce heat energy consumption 2 fold.

Capacity: the wood processing plant will be able to produce 24,000 m³ triple layered briquette, a 500,000 m² wooden floor and 10,000 m³ construction raw log. The project will be build in Songino khairkan district, Ulaanbaatar in a 20 hectares area. Electricity will be supply from Central Electricity System on contractual base, meanwhile, a sawdust and coal firing power plant with installed capacity of 1,750 kWt will supply electricity and 8,250 kW steam.

Total investment (millions USD): 50,0.

Project period: 4 years.

Project location: Songino khairkan district, Ulaanbaatar.

